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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/845,883	04/30/2001	Yuzuru Ishioka	FUJR 18.621	4047

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EXAMINER


NGUYEN, STEVEN H D

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 03/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/845,883	Applicant(s)  ISHIOKA, YUZURU	
	Examiner Steven HD Nguyen	Art Unit 2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
3. Claims 1, 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schuster (USP 6360271) in view of Maki-Kullas (USP 6650621).

Regarding claims 1 and 3, Schuster discloses a communication device which controls transmission of packets (Fig 2, Ref 12), comprising (a) a transmission testing means for performing a packet route evaluation test (Col. 4, lines 35-32, generating a test packet), comprising test packet generating means for generating a test packet (Col. 4, lines 35-32, generating a test packet), one for each route reaching a given destination node (Fig 5, Ref 66 discloses delay for each of paths A, B, C is determined), the plurality of test packets including one reference test packet (Reads on Path A), transmission time acquisition means (Fig 2, Ref 30

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for recording a transmitting time on the first packet to be send out on the path A) for recording reference transmission time at which the reference test packet is transmitted, and measuring transmission times of the other test packets to be transmitted, relative to the reference transmission time (Fig 2, Ref 30 acquired a transmission time for the other test packets of the other paths wherein the time of the other packets is relative to the time of the first test packet based on the clock, See col. 12, line 43 to col. 13, line 21); reception time acquisition means for recording reference reception time at which the reference test packet is received (Fig 2, Ref 30 for recording a receiving time on the first packet after being loop back by receiving node on the path A), and measuring reception times of the other received test packets, relative to the reference reception time (Fig 2, Ref 30 acquired a receiving time for the other test packets of the other paths wherein the time of the other packets is relative to the time of the received first test packet based on the clock, See col. 12, line 43 to col. 13, line 21), and transport time evaluation means for ranking the plurality of routes in the order of packet transport times thereof, by evaluating the difference between the transmission time and reception time of each test packet (Fig 5, Ref 66 and 68 for ranging the paths based on lowest delay); and (b) packet transmission means for transmitting packets to one of the routes that is selected according to the result of the packet route evaluation test performed by said transmission testing means (Fig 5, Ref 68 and 70, See col. 5, line 60 to col. 6, line 4, col. 15, lines 3-26, col. 16, lines 1-15); said packet transmission means normally chooses the shortest route from among the plurality of routes that exhibits the smallest packet transport time (Fig 6, Ref 68 and 70); and when a failure occurs in the shortest route, or when an excessive traffic increase is observed in the shortest route, said packet transmission means chooses the second shortest route from among the remaining routes

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as an alternative to the shortest route, and transmits packets to the alternative route (Fig 4, Ref 60, if the transmission end node determines that the traffic of first path is congested “the delay is greater than threshold” than the route to the second path (Fig 4, Ref 62). However, Schuster fails to disclose a communicating device for generating a plurality of test packets. In the same field of endeavor, Maki-Kullas discloses a communication device (Fig 7, Ref 10 and 32) for generating a plurality of test packet for transmitting each packet on a route for determining a round trip delay between the routes (Fig 7, Route 1, Ref 30a and 2, ref 30b) and selecting a route with lowest delay for transmitting packets (See col. 5, lines 4-20) and always selecting a fastest route and reroute the packets from the first route to second route if the first route fail or not have enough bandwidth (See col. 10, lines 22-65).

Since, Schuster suggests that the each receiver and transmitter has the IP addresses (See col. 8, lines 53-56). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to apply a method of generating a plurality of test packet for transmitting each packet on a route for determining a round trip delay and selecting a least delay route for transmitting the packets as disclosed by Maki-Kullas’s system and method into the Schuster’s system and method because of the advantage of using the test packet for each route to determine the round strip delay between source and destination is well known and expected in the art. The motivation would have been to perform a load balancing, obtain a quality signal such as sensitive packet and avoid a congestion.

Regarding claim 5, Schuster and Maki-Kullas fails to disclose a display for displaying the results. However, the examiner take an official notice that a method and advantage of using a

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monitor for showing the test result to a user is well known at the time of invention was made in order to monitor the performing of the network.

4. Claim 2 rejected under 35 U.S.C. 103(a) as being unpatentable over Schuster and Maki-Kullas as applied to claim 1 above, and further in view of Mawhenney (USP 6269082).

Regarding claim 2, Schuster and Maki-Kullas fail to disclose the claimed invention such layer 2 switch networks and Layer 3 router network wherein the testing means used for evaluating the round trip delay on the routes of layer 2 switch network. In the same field of endeavor, Mawhinney discloses a communication system comprising a communicating device (Fig 2, Ref 113 and 123) for receiving a IP packet from a router (Fig 2, Ref 126 or 106, layer 3) and translating IP packet into a layer 2 packet for transmitting via tag switching network such ATM "label switching" and comprising a diagnostic logic (Fig 3, Ref 190) for generating a test sequence such loop back test includes a time stamp for measuring the round trip delay between the nodes on a virtual circuit (Col. 11, lines 5-22 and col. 12 lines 1-23).

Since, Schuster suggests a network for carrying the data packet and test packet includes ATM, Frame relay (See col. 1, lines 18-28). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to apply an interworking unit between a router and ATM switch for converting between IP and ATM protocol and generating a test packet for determining a round trip delay between the nodes as disclosed by Mawhinney's system and method into the system of Maki-Kullas and Schuster. The motivation would have been to obtain a quality signal for sensitivity application such as voice.

5. Claim 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Schuster and Maki-Kullas as applied to claim 1 above, and further in view of Mawhenney

Regarding claim 4, Schuster discloses loop back path for return the transmitting test packet includes transmitting time and receiving time to the source node from the receiving node wherein the evaluating is performing a regular basic (See col. 4, lines 29-52, periodically transmitting a test packet with a time stamp and arrange the packet to return to the source “loop back path”) and Maki-Kulass discloses a loop back path for the routes (Fig 7, Route 1 and 2). However, in the same field of endeavor, Mawhinney discloses a communication device for transmitting a inquire message from a source “near end” to destination “far end” and receiving a response message wherein the message includes transmitting time and receiving time (Fig 5 and Fig 8, col. 12, lines 47-64).

Since, Schuster suggests a loop back message for calculating the transmission delay. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to apply a message which includes transmitting and receiving time stamp as disclosed by Mawhinney into the system of Maki-Kullas and Schuster. The motivation would have been obtain a corrected receiving time.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven HD Nguyen whose telephone number is (571) 272-3159. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Steven HD Nguyen
Primary Examiner
Art Unit 2665
3/4/05